

**To:** Foreman, William[wforeman@usgs.gov]  
**Cc:** Warner, Sue[Warner.Sue@epa.gov]; Caporale, Cynthia[Caporale.Cynthia@epa.gov]; Zawodny, Peggy[Zawodny.Peggy@epa.gov]; Donna Rose[drose@usgs.gov]; John Zogorski[jszogors@usgs.gov]; Duane Wydoski[dwydoski@usgs.gov]; Lucinda Murtagh[lmurtagh@usgs.gov]; David Reppert[dreppert@usgs.gov]  
**From:** Rose, Donna  
**Sent:** Fri 1/24/2014 9:39:48 PM  
**Subject:** Re: purge conditions  
[Table.5.4437.OperatingCond.April28.xlsx](#)

Hi Everyone

I got the standard in for 4-methyl-1-cyclohexanemethane and ran a 50 ug/L standard on my system. The mass spec is in full scan/sim simultaneous mode. The operating conditions are listed in the attached excel file.

I got two peaks, one at 23.514 minutes and one at 24.094 minutes. Both matched the NIST reference spectra beautifully. I don't know which peak is the cis isomer and which is the trans isomer. TCI had a purity of 99.8% for the total isomer purity. I left a message with technical support to see if they had additional information on the percentages of each isomer.

The response is beautiful in the full scan mode. The second peak is slightly bigger than the first but not by much. The two peaks at the end of the chromatogram are the MCHM isomers.

full scan data file

Data File: \\Igskofhws01427\data\4437T14024.B\001-mchm-50ppb.D

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Date : 24-JAN-2014 12:46

Client ID:

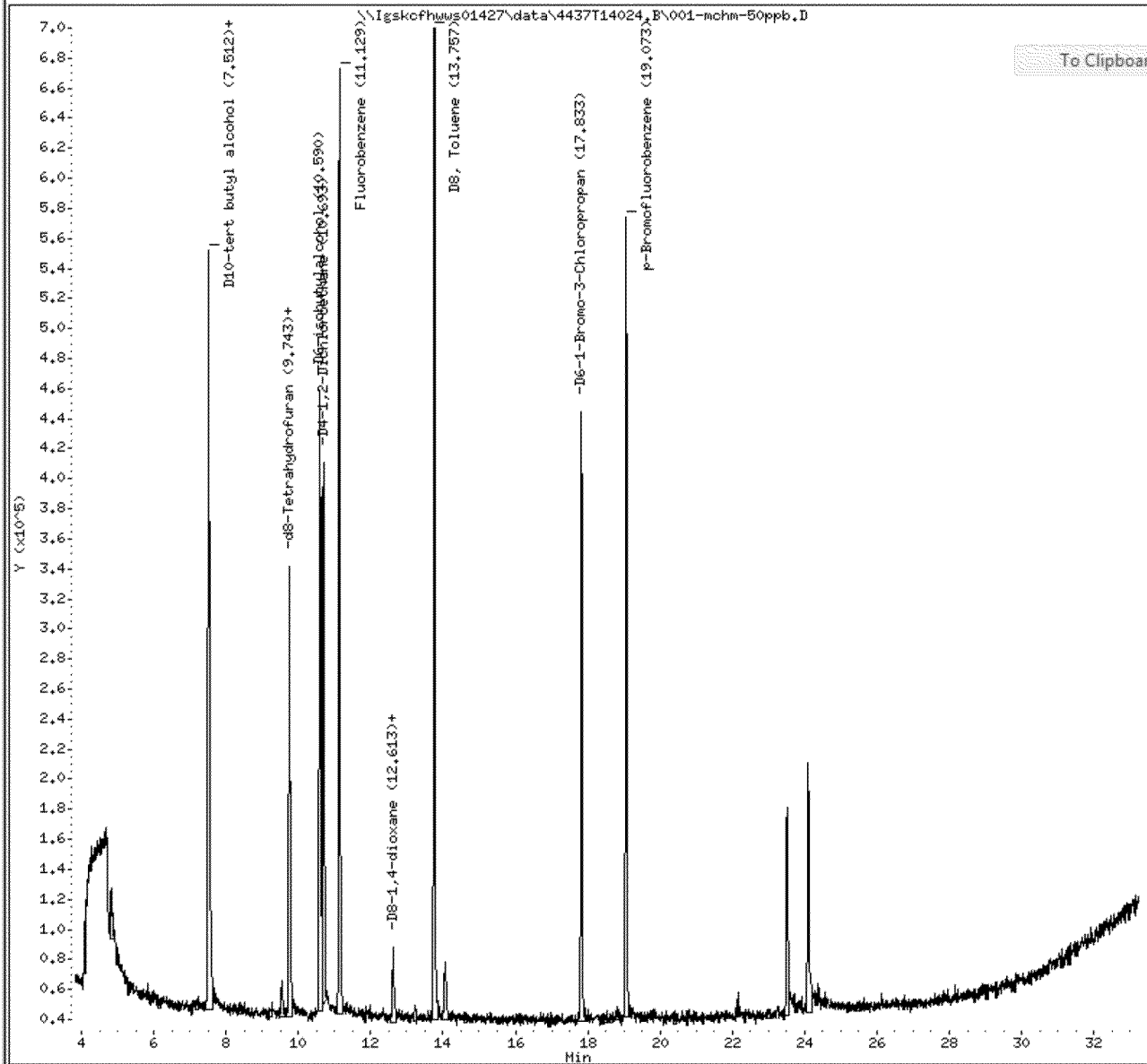
Instrument: 5973T.i

Sample Info: 001-mchm-50ppb

Operator: dloose

Column phase: db624

Column diameter: 0.25



Donna Rose, Chemist  
U. S. Geological Survey  
303-236-3283

On Thu, Jan 23, 2014 at 3:19 PM, Foreman, William <[wforeman@usgs.gov](mailto:wforeman@usgs.gov)> wrote:

Sue,  
Thanks for the info and call. We'll let you know how it goes for us.  
Bill

On Thu, Jan 23, 2014 at 2:36 PM, Warner, Sue <[Warner.Sue@epa.gov](mailto:Warner.Sue@epa.gov)> wrote:

Recommended Operating Conditions for Purge and Trap  
Apparatus for Volatiles in Soil Analysis (Low Level) Using the  
Archon Autosampler

Operating Parameter	Setting
Sample Type	Soil
Sample Volume	5 or 10 mL (adds 5 or 10 mL: 10 mL for samples and blanks and 5 mL for standards and spikes)
Rinse Volume	25 mL
Number of Rinses	2
Standard 1	Yes
Standard 2	No
Soil Preheat Stir	Yes
Stir	Yes
Syringe Flushes	2
Preheat	Yes
Preheat Temperature	40 °C
Preheat Time	1.5 min.
Purge Time	11.0 min.
Desorb Time	2.0 min
Operational Mode	Remote
Cycle Timer	38.3 min
Aux Time	0.0 min
Purge Gas Pressure	20 psi
Flow	35-40 mL/min

The trap used is a VOCARB 3000.

**From:** Caporale, Cynthia  
**Sent:** Thursday, January 23, 2014 4:18 PM  
**To:** Warner, Sue; Zawodny, Peggy  
**Subject:** FW: purge conditions

FYI – feel free to speak to the voc analyst directly or if you want a conference call I'd be willing to help set one up.

**From:** Foreman, William [<mailto:wforeman@usgs.gov>]  
**Sent:** Thursday, January 23, 2014 4:10 PM  
**To:** Caporale, Cynthia  
**Cc:** Donna Rose; William Foreman  
**Subject:** purge conditions

Hi Cindy,

I'd appreciate your checking with your P&T analyst regarding the following conditions used:

purge temp

purge time

purge volume

type of trap

I've cc'd our lead VOC analyst, Donna Rose. If your analyst has time for a brief call today or tomorrow, please have them call Donna at 303-236-3283. Or we can set a time and do it as a conference call.

If you happen to have any handy details about the ERT mobile lab's method, that would be helpful.

We greatly appreciate the help/guidance!

Bill

William T. Foreman, Ph.D.

Research Chemist  
Methods Research and Development Program  
U.S. Geological Survey  
National Water Quality Laboratory  
P.O. Box 25585  
Denver, CO 80225-0585  
{For Fedex, delete Box number and add Bldg. 95, Entrance E3}  
303-236-3942; FAX: 303-236-3499  
email: [wforeman@usgs.gov](mailto:wforeman@usgs.gov)

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Donna L. Rose  
Chemist  
[dlrose@usgs.gov](mailto:dlrose@usgs.gov)  
U.S. Geological Survey  
National Water Quality Laboratory  
303-236-3283 phone  
303-236-3499 fax